

**Pinar L, Enhos A, et al. Can We Use Nerve Gliding Exercises in Women With Carpal Tunnel Syndrome? *Advances in Therapy* 2005;22(5):467-475**

Design: Randomized clinical trial

Brief summary of results:

- 26 women age 35 to 55 (35 hands) treated for CTS at a hand surgery and orthopedic trauma hospital in Izmir, Turkey
- Randomized to an experimental group (14 patients, 19 hands) or a control group (12 patients, 16 hands)
- Control group received a splint and a patient training program for modification of activities; the splint was a static neutral volar wrist splint worn day and night for 6 weeks, and at night alone from week 6 to week 10; activity modification consisted of avoidance of repetitive hand activities, refraining from gripping strongly with first and second fingers, rest between activities, and decreasing speed and strength in all hand activities
- Experimental group received control intervention, and in addition received instruction in 6 median nerve gliding exercises, each exercise to be performed at home 10 repetitions 5 times a day for 10 weeks
- Both groups showed significant improvements in pain scores, grip strength, pinch strength, and Semmes-Weinstein distances between baseline and the end of the study; the improvement in grip strength was greater in the experimental group than in the control group, while the other improvements were equal between groups
- Electrophysiologic test results were abnormal in all 35 hands at baseline, but were normal at the end of treatment in 63% of the experimental hands and in 50% of the control hands

Authors' conclusions:

- Healing occurs more quickly in the group that performed nerve gliding exercises
- While most group differences were not significant, this may have been due to the small number of cases in the study
- The significant advantage in grip strength for the nerve gliding group suggest that nerve gliding exercises may play an important role in enhancing the effectiveness of conservative treatments

Comments:

- Grip strength, while showing a small advantage in the experimental group, is less relevant to assessing median nerve function in CTS than is pinch strength
- While electrodiagnostic results and Phalen/Tinel were compared at baseline and follow-up, an opportunity was missed to provide a more relevant functional scale (e.g., activities of daily living) for outcome comparison
- Pain VAS is of interest, but nocturnal waking and paresthesias would have been a more informative symptom measurement to have made
- Randomization is not described; allocation concealment cannot be assumed

Assessment: Inadequate to support an evidence statement that nerve gliding is superior to splinting alone; nerve gliding makes physiologic sense and can be supported as an optional intervention for conservative treatment of CTS